Session Keys Grand S

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User Manual

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Welcome to Session Keys Grand S

Thank you for choosing Session Keys Grand S.

Session Keys is a series of highly expressive and versatile acoustic grand pianos that lets you quickly achieve great results.

With a new and innovative approach Session Keys Grand provides a fresh look at the timeless Grand Piano. Carefully selected acoustic pianos, meticulous recording and inventive feature sets deliver unmatched versatility and truly inspiring instruments.

We hope you enjoy using Session Keys and we would be delighted to hear your feedback and ideas!

Session Keys — Key Features

Session Keys provides you with a multitude of sound options, from a purely classical to a modern sound approach.

- **Two different sample sets per instrument:**

  Concert mode was recorded in a carefully chosen room for the typical grand concert sound with open lid. A classical microphone setting was used to capture all the air and room resonances that provide the wide, open expressive grand concert piano sound.
  For the second flavor, studio mode with the lid removed, a completely different recording approach was applied with thorough close microphone combinations to capture a dry, direct and responsive grand piano sound.
- **The unique Pentamorph controller allows for morphing the grand piano's acoustics from the standard characteristic sound into atmospheres that go far beyond the obvious and make it easy to create motions and soundscapes on the fly with just one knob.**
- **The Session Keys Animator turns notes or chords into authentic piano phrases while maintaining real-time controllability. Utilising the Animator is just an intuitive and inspiring way to jam with piano performances covering a wide range of musical genres and styles with flexible playable piano phrases that always follow your harmonies.**
- **Session Keys Smart Chord Mode provides a completely new and inventive way to play the piano and add a new depth of musical expression. Full chords or Animator songs can be played via either pad controller or single keys.**
- **The Piano section contains Dynamic Response and Pedal controls as well as detailed control of all piano sound aspects including harmonics, sympathetic sound, pedal, key and hammer noise and more.**
- **The Effects section features a 3-band equalizer, stereo width control, a compressor, as well as Reverb and Delay effects.**

About Kontakt / Kontakt Player

Session Keys is an Instrument powered by KONTAKT; you will, therefore, need to have KONTAKT or the free KONTAKT PLAYER installed on your computer in order to use Session Keys. Refer to the KONTAKT / KONTAKT PLAYER documentation to learn how to load and configure KONTAKT Instruments.

Installation

1. **Once you have downloaded Session Keys, unzip the file and copy its contents to a drive on your computer**
2. **In the KONTAKT browser, click on the Libraries tab and select Add Library.**

3. **A file selector box will open. Browse to your Session Keys Library and select it.**

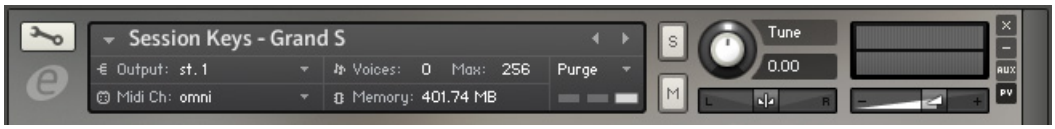
4. **The library box will automatically appear in the Libraries tab. Note that the Session Keys box displays an Activate button which indicates that the product has not yet been activated on this computer.**
   Native Instruments' ServiceCenter application, which is described in the Native Instruments documentation, is used for the activation process.

! Please note that a working internet connection is required for immediate activation.

5. **Click Activate to open the Product Activation window and enter your product serial number here. Click Activate to confirm.**
   Your library is now activated and ready for use.

Session Keys Controls

This chapter introduces you to Session Keys' specific controls, which are part of the Instrument within your Kontakt / Kontakt Player software.



The Kontakt Instrument Header

To learn how to operate the Instrument Header's controls, please refer to the documentation of your Kontakt or Kontakt Player software.

Basic Control Types

Session Keys includes six basic types of controls:

Buttons

These can have different shapes (e.g. "LED", rectangular, text or other) and are all toggles — click once to turn on, again to turn off. When actuated, buttons, button frames or text changes color which reflects the new state.

Selector Switches

Selector switches also come in different shapes and forms and are used to select one or several options. Click the desired option to select it.

Some program sections contain special selector switch types:

- **The Phrase selector in the Animator (looks like an octave of piano keys) — click any of the "white" keys to select one of the available piano phrases.**
- **The Tempo selector in the Animator lets you select one of three available playback speeds (standard, half time, double time).**
- **The Pedal switches in the Piano section have pedal shapes as found on grand pianos.**
- **The pentagon-shaped Pentamorph in the same section lets you select one of its five options by clicking on the corresponding name. You can also seamlessly morph between options by dragging the white button up or down like a vertically aligned fader.**
- **When assigning smart chords to keys or pads on your keyboard in the Smart Chord section dialog, you can make multiple selections; i.e. choose to select a bass note, one of two inversions and a modifier.**

Knobs

➔ **To "turn" a knob, click on it and drag up to move the knob setting clockwise, or down to move it counter-clockwise.**
Knobs can be fine-tuned by holding down your computer keyboard's [Shift] key as you turn the knob.
[Ctrl] + Click (Mac: [Cmd] + Click) resets a knob to its default value

Faders

Session Keys has two faders:

- **A horizontal fader, located under the heading Dynamic in the Animator, used to determine the effect of key velocity versus pitch bend control in order to control the dynamics of the Animator phrases.**

➔ **Click between the two arrow head tips and drag horizontally.**

- **The Pentamorph in the Piano section.**

➔ **Click on the center of the pentagon shape and drag vertically to change its current setting. Alternatively, drag the white fader handle up or down.**

Drop-Down Menus

These menus can usually be recognized by a small downward pointing arrow.

➔ **To access a drop-down menu's entries, click on the menu. A list holding several entries drops down. To select one of the entries, move the mouse to the corresponding entry so that it gets highlighted, then release the mouse button.**
The Instrument takes whatever action you've requested, then closes the menu.

Session Keys Grand S – Quick Overview

Session Keys Grand S can be used for real time performance as well as for production and sequencing work. It offers two differently recorded sample sets – Concert and Studio – and all additional controls for shaping the instrument sound. When you change to the other sample set, the background view will change, but controls remain identical for both sample sets. These are described in detail on the following pages.

Session Keys – Grand S with concert samples selected

Sound section. This is where you create, name and load your own Sound presets

Tonality & Effects buttons. Clicking one of these opens its dedicated pop-up dialog where you can edit the respective parameters. The combined Tonality & Effects settings can be named, saved and opened as Sound presets

To select one of the two sample sets available, click on one of these two **Sample Set buttons**.

Animator & Piano tabs (Piano tab view visible). Click a tab to open the respective section for direct use or editing.

Smart Chord section. Here you can activate, set up and use the Smart Chord function.

Pads & Keys buttons. With Smart Chord active, each of these buttons opens a dialog where you can set up and assign it to Pads and Keys on your controller keyboard.

Settings button. Click to open the Settings pop-up. where you can set up basic functions such as tuning, velocity curve etc.

Pentamorph fader and buttons (in Piano section)
Click one of the five names to switch to the respective sounds or click in the pentagon shape and drag uo-/downwards to morph between the sounds.

Session Keys – Grand S with studio samples selected

Using the functions in the Session Keys Grand S window you can:

- **Select the desired sample set – studio or concert – by clicking on one of the two small grand piano icons in the lower left corner of the piano picture, see page 8.**
- **Determine the tuning type and concert pitch as well as the desired velocity curve and other functions in the Settings dialog that appears when you click the cogwheel icon in the lower right corner of the piano picture, see page 9.**
- **Control all tonality aspects that you can set up in the Tonality pop-up which appears when you click the Tonality button in the Sound section, located in the upper left of the window, see page 11. Tonality parameters include harmonic, inharmonic and sympathetic resonance, attack and decay, pedal, key and release noise and the volume of reverse samples.**
- **Control all EQ and effect settings in the Effects pop-up which appears when you click the Effects button in the Sound section, located in the upper left of the window, see page 13. Here you can activate/deactivate and set up a 3-band equalizer, the stereo width, a compressor, a convolution reverb unit with many presets and a mix knob, a delay unit with mix and time controls.**
- **Save (and later load) all Tonality and Effects settings as a Sound preset using the controls in the Sound section, located in the top left corner of the window, see page 11.**
- **Set up the overall dynamic response in the Piano section that appears when you click the Piano tab in the lower right part of the window, see page 7. Here you can also use the Pentamorph fader and buttons to select or set up a blend of sound types. If you don't have a hardware triple foot pedal, you can manually activate/deactivate any combination of the three grand piano pedals here.**
- **Assign a root note and a chord map (gender or mode) to a key or pad on your controller keyboard and use the Smart Chord function to play harmonically correct chords by pressing a key or pad, see page 15. You can also play different chord inversions as well as certain interval notes by pressing additional keys or pads.**
- **The unique Animator contains pre-programmed yet very flexible and usable piano phrases in various styles. These phrases are grouped as songs that contain different phrases for intro, verse, choruses, bridge and ending, which you can apply using your own chords. All Animator setup parameters become available when you click on the Animator tab in the lower left part of the window. As with all other parameters in this list, these are described in detail in their own manual section, see page 20.**

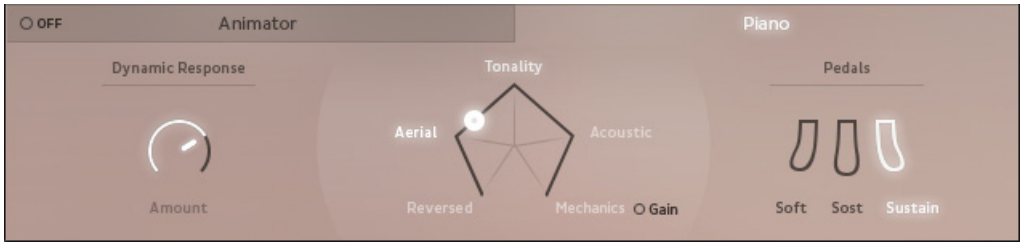
Piano Section

The Piano section is located at the bottom of the window.

➔ **To open it, click the Piano tab located at the lower right end of the window.**

From left to right, the Piano section hosts three functions that can greatly impact your sound:

- **A Dynamic Response knob**
- **The Pentamorph Fader and buttons**
- **Three foot pedal switches**



Piano section

Dynamic Response

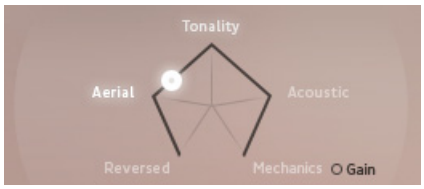
The Dynamic Response knob is used to control the overall dynamic response of the piano. Usually, a musician will want to use the full dynamic range of the instrument. But in certain situations limiting dynamics may be useful. If you want to prevent a signal surpassing a certain maximum output level during recording, limiting the dynamic response may be a solution.

- **The more you turn up the Dynamic Response knob, the larger the available dynamic range.**
- **The more you turn down the knob, the smaller the available dynamic range**

➔ **To set dynamic range, click the Dynamic Response knob and drag up- or downwards.**

Pentamorph Fader & Buttons

The Pentamorph is a powerful tool in pentagon-shape that lets you very quickly and radically change your sound. It consists of five switches and a fader. The fader can be used to morph between the available sounds and Tonality settings.



Pentamorph Fader & buttons

Each corner of the pentagon shape is named. These names are switches.

- **If you click on one of the names, the white round fader handle will directly jump to the respective corner of the pentagon shape and the corresponding setting will be used:**

Reversed	**Only the reverse samples are used.**
Aerial	**Reverse and and mechanics samples (pedal, key and release noise) are used.**
Tonality	**The acoustic samples and all settings in the Tonality dialog (including reverse samples) are used**
Acoustic	**The acoustic samples and all settings in the Tonality dialog (without reverse samples) are used**
Mechanics	**Only the mechanics samples (pedal, key and release noise) are used.**

! Note that reverse samples are only audible, when you have turned them up in the Tonality dialog!

Using the Pentamorph Fader & Buttons

- **If you click somewhere within the pentagon shape or on the fader handle and drag up- or downwards, the fader handle will move along the pentagon sides and the sound will morph accordingly.**
- **There is a Gain button next to Mechanics in the lower right corner of the pentagon shape. If you activate this, the sound of the piano mechanics (i.e. pedal, key and release noise) will be boosted.**

Pedals

In this section, you can manually activate or deactivate any combination of the three grand piano pedals.

Pedals in the Piano section

- **Activating the Soft pedal results in a less loud and slightly muffled sound.**
  The reason for this is that pressing this pedal on a grand piano lets it use only use 2 out of of 3 strings available for many keys.
- **Activating the Sostenuto pedal works like a separate sustain pedal for all those keys that are pressed when this pedal is activated.**
- **Activating the Sustain pedal removes the damper from all strings so that all played notes conclude with their natural sustain.**

► You can also use the Sustain pedal to hold chord playback when the Animator is active, see page 23.

➔ **Click the desired pedal to activate or deactivate it.**

Selecting a Sample Set

In the lower left corner of the piano picture, you can switch between the two available sample sets Concert and Studio. The sample sets were created with different instrument and microphone setups:

- **The Concert samples were taken from the grand piano with its piano lid open for concert sound projection and microphones set up for complete capture of string, instrument body, key, damper and pedal noise as well as room sound. The combined recorded samples give you the complete sound of this grand piano, as you would hear it in a concert without amplification equipment. Session Keys lets you easily tweak the individual sound components so that they match your personal sound preferences, see page 12 and page 13.**

➔ **To switch to the Concert sample set, click the Concert button.**

The Concert button (on the left) has been activated.

- **The Studio samples were taken from the piano with the lid removed and the microphones positioned more closely to the strings and the other piano parts. The resulting sample set has more attack and sounds brighter. This may be an advantage when you use the piano in a modern arrangement together with many other instruments, playing at the same time, as in many cases these piano samples will have more punch within the mix.**

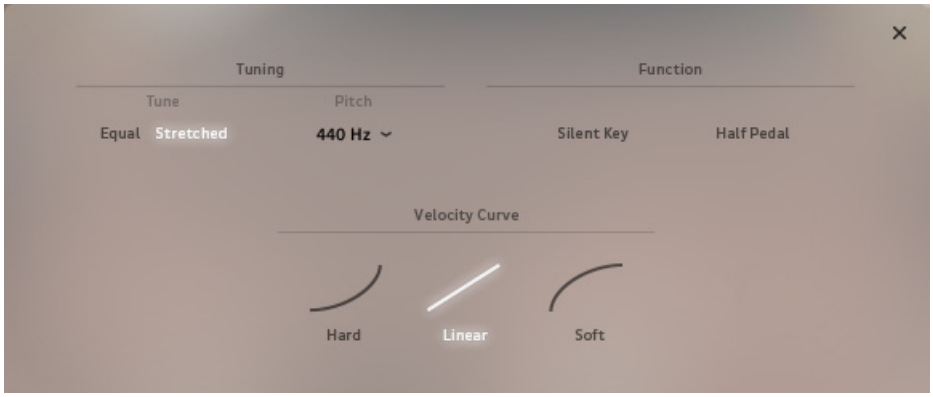
➔ **To switch to the Studio sample set, click the Studio button**

The Studio button (on the right) has been activated.

Settings Pop-Up Dialog

This dialog is used for a number of basic settings. It will appear when you click the Settings button (the small cogwheel icon) in the lower right corner of the piano picture:

Clicking the Settings button..



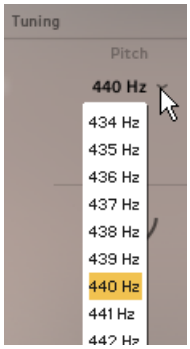
...opens the Settings pop-up dialog.

Tuning

In this section, you can switch tuning between Equal and Stretched.

- **"Equal" stands for equal temperament tuning, where each pair of adjacent notes has an identical frequency ratio. In many cases, this will be the tuning of choice when you simultaneously use a synthesizer.**
- **"Stretched" stands for a tuning method for stringed musical instruments that attempts to accommodate the natural inharmonicity of their vibrating elements.**

➔ **Click Equal or Stretched to select the desired tuning.**
The currently selected option is shown in white.



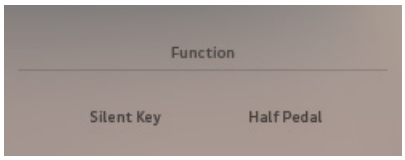
Pitch pop-up menu

The Tuning section is also where you can change the standard concert pitch (A = 440 Hz), if necessary/desired.

➔ **Click the downward pointing arrow head next to the currently set pitch to open a drop-down menu where you can select one of the available options.**

Silent Key and Half Pedal Functions

The Functions section in the Settings pop-up dialog lets you activate two functions; Silent Key and Half Pedal.

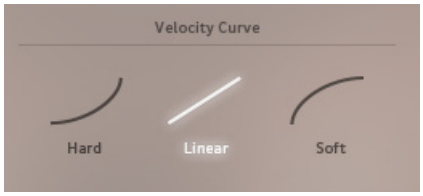


- **When you activate Silent Key, you can softly press and hold down one or several keys and prevent the (virtual) hammers touching the (virtual) strings. The strings can now vibrate freely and interact with notes that you play with normal velocity. Depending on the notes you play, this will e.g. produce harmonic overtones or other sympathetic resonance that produces effects similar to reverb.**
- **By activating Half Pedal – which creates the same effect as partially pressing the damper pedal – you can achieve a shorter sustain. The applied MIDI sustain value decides whether Half Pedal is applied or not. This function requires a sustain pedal that can send continuous sustain data.**

➔ **To activate the desired function, click its name so that it lights up.**

Velocity Curve

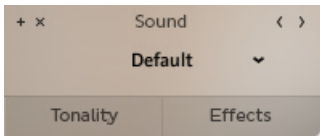
If your controller keyboard supports velocity, you can use these three switches and one knob to determine how Session Keys reacts to the velocity that you apply when pressing the keys on your keyboard. Three options – Hard, Linear and Soft – are available and should be self-explanatory.



➔ **To activate the desired velocity curve, click it so that it lights up.**

Sound Section

This section, located top left in the Session Keys window, lets you set up tonality and effects and name, save or load these settings as a "Sound". The two buttons at the bottom let you open the Tonality and Effects pop-up dialogs, where you can control all tonality aspects as well as all EQ and effect settings.



The Sound section

All functions available in the Sound section are described in the following paragraphs.

Sound Preset Handling

All the settings that you make in the Tonality and Effects pop-up dialogs can be saved as a Sound preset.

Creating a Sound Preset

1. **Open the Tonality pop-up dialog by clicking its button and set up its parameters as you like.**
2. **Open the Effects pop-up dialog by clicking its button and set up its parameters.**
3. **Click the small "+" switch in the upper left corner of the Sound section.**
   The Sound preset name line will show "Enter Name" followed by two buttons.
4. **Select "Enter Name", type in a new name and click the small "OK" button.**
   If you have changed your mind and want to start from scratch, use the "X" button to the left of the "OK" button to delete the preset.

Loading a Sound Preset

Two methods are available to load a Sound preset. You can either:

1. **Open the Preset drop-down menu by clicking the downward pointing arrow head.**
2. **Select a preset in the drop-down menu by clicking on its name.**

or:

➔ **Use the two horizontal arrow heads in the upper right corner of the Sound section to directly select the previous or next setup preset.**
By clicking several times you can sequentially step through the preset list as it is shown in the drop-down menu.

Deleting a Sound Preset

Factory presets can not be deleted. For all other presets, two methods are available to delete a Sound preset.

➔ **To delete the currently selected preset, click the small "x" button in the top left corner of the Sound section.**

➔ **To discard a Sound preset that you have just created but not yet saved, click the "X" button to the left of the "OK" button.**

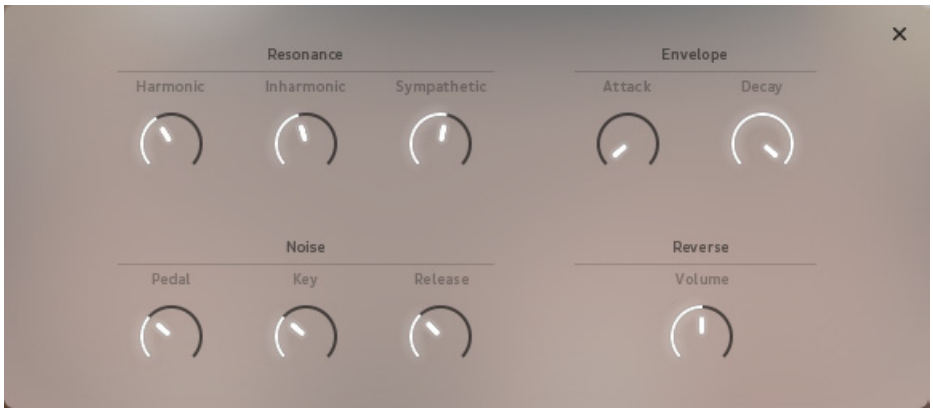
! Please note that you can not undo deleting a Sound preset!

Tonality Pop-up Dialog

➔ **Click the Tonality button in the Sound section to open the Tonality pop-up dialog.**

The Tonality pop-up dialog is a powerful tool to set up parameters that greatly influence the Session Keys sound. In conjunction with the Pentamorph in the Piano section, you can create and quickly access everything from a naturally sounding grand piano to weird other-worldly sounds of strange beauty.

➔ **To turn a knob, click and drag up- or downwards, as usual.**



Tonality pop-up dialog

Resonance

You can use the three knobs in this section to define the levels of **harmonic**, **inharmonic** and **sympathetic resonance**. As these resonance types have been separately sampled during sample recording of Session Keys, you are free to apply them as you desire. Use your ears and hear what happens, when you apply the Pentamorph Fader in the Piano section, see page 7.

Envelope

These two knobs can be used to set up the sample envelope curve.

- **Turning up the Attack knob will gradually remove the attack phase and "fade in" the sound of the keys you play.**
- **Fully turning up the Decay knob will let the samples sound out with their normal decay (providing you press the key for as long as necessary or use the sustain pedal). Gradually turning this knob downwards will shorten the decay phase.**

Noise

You can use these three knobs to individually control the level of noise created by using the pedals or pressing and releasing the keys. These real-world sounds are an integral part of the complete grand piano sound. They have also been sampled separately and you can apply them as desired.

Finding the "normal" level for these sounds is easy. But you can also try out setting noise parameters to fairly extreme values and maybe use the Cathedral reverb in the Effects section, see page 14. Then activate the sustain pedal in the Piano section or – if you happen to have one – use your the sustain pedal on a hardware triple pedal and hear what happens.

Reverse

Many Session Keys samples have also been included as reverse samples. These can be applied or removed in the most simple manner: by turning the Reverse volume knob up or down. We recommend that you experiment with this knob (in conjunction with the other Tonality knobs) to find the best solution for the sound you need for the project at hand.

Effects Pop-Up Dialog

➔ **Click the Effects button in the Sound section to open the Effects pop-up dialog.**
If you had the Tonality pop-up open before, you do not need to close it; simply clicking on Effects will do.

The Effects pop-up dialog contains a number of sound processing and effect tools to shape your Session Keys sound.

➔ **Each of these tools can be activated or deactivated by clicking the respective On/Off button.**

Effects pop-up dialog

Equalizer

This is a set of three semi parametric EQs for low, mid and high frequencies. You can use it to increase desired or decrease unwanted frequencies in Session Keys' sound.

1. **First, activate the Equalizer by clicking its Off button so that it lights up and shows "On".**
2. **Now use the Freq knob to select the center frequency of the frequency band that you wish to decrease or increase in level.**
When you click the Freq knob or change its frequency setting, the actual center frequency is displayed below the knob.
3. **Then use the Gain knob to actually increase or decrease the level of the previously selected frequency band.**
When you click the Gain knob or change its level setting, the actual level increase/decrease setting in dB is displayed below the knob.

Stereo Width

This bipolar knob lets you control the stereo width of the output signal.

- **When the knob is set to its 12 o'clock position, the stereo width of the original samples is used.**
- **Turning the knob fully down creates a mono signal.**
- **Turning the knob up beyond its 12 o'clock position will further increase stereo width.**

The currently set value will be displayed under the knob when you use it.

1. **Activate Stereo Width by clicking its Off button so that it lights up and shows "On".**
2. **Click the knob and drag up- or downwards to set the desired stereo width.**

Compressor

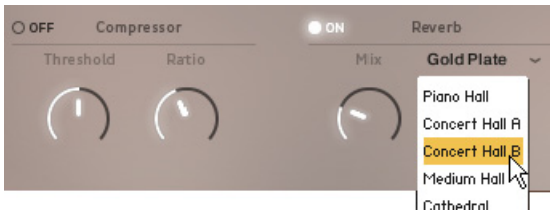
Session Keys also features a compressor unit that you can use to control the dynamics of the resulting sound. A compressor narrows the dynamic range of an audio signal. It does this by reducing the level of loud signal peaks. As a result (and when you make up for the loss in output level by increasing output volume) the level of quieter signal parts will be increased compared to the louder peaks.

The Session Keys compressor has two knobs:

- **Threshold is used to set the level in dB above which compression sets in. All level peaks below the set threshold level pass unaffected.**

- **Ratio determines the amount of gain reduction. It is set as a ratio value, hence the name. E.g. if a signal peak exceeds the set Threshold level by 4dB and ratio is set to 4:1, the compressor output signal will only exceed the threshold level by 1dB and the gain level will be reduced by 3dB.**

➔ **Click the knob and drag up- or downwards to set the desired values.**
Current values will be displayed below the knob as soon as you click or change its value.



Compressor knobs, Reverb Mix knob and Reverb pop-up menu

► Note, that the output level will decrease when you apply compressor. You can make up for this by increasing the NKI output level.

Reverb

You can add reverb to your grand piano sound; Session Keys has a built-in high-quality reverberation unit with a great number of reverb presets. You can use the Mix button to set up the ratio between the unprocessed (dry) and processed (wet) signal in the output signal.

➔ **Click the downward pointing arrow head in the Reverb section to open the drop-down menu where you can select one of many available Reverb types.**

➔ **Click the Mix knob and drag up- or downwards to set the desired ratio between dry and wet signals.**
When the Mix knob is fully turned down, no reverb will be audible, when it is fully turned up, only the reverb (wet) signal is audible.

► Note, that the output level will increase when you apply reverb.

Delay

Session Keys offers an easy-to-use Delay unit that you can apply to add echo to your piano sound. The unit has just two knobs; Time and Mix.

➔ **Click the Time knob and drag up- or downwards to set the desired echo repeat time.**

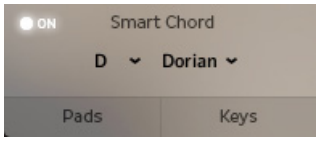
➔ **Click the Mix knob and drag up- or downwards to set the desired ratio between unprocessed (dry) and processed (wet) signals.**
When the Mix knob is fully turned down, no delay will be audible, when it is fully turned up, the maximum number of delays will be audible.

Delay

Smart Chord Section

The Smart Chord section is located in the top right corner of the window. Smart Chord lets you play musically correct chords by pressing one or more keys or pads on your external MIDI controller keyboard or Pad controller unit such as Native Instruments' Maschine. Smart Chords can also be used by clicking the keys or pads in the Keys and Pads pop-up dialogs. It works like this:

- **You select a root note and chord map from the two drop-down menus in the Smart Chord section.**
- **The chords defined by root note and chord map will automatically be assigned to the ("white") keys/pads on-screen and on your controller keyboard/pad controller, starting with the C key or the lower left pad.**
  If you select "F" as root note and "major" as gender, pressing the C key on your keyboard will create an F major chord.
- **Then you can play the resulting chords by either pressing the respective key or pad on your external key or pad controller or by clicking the respective key or pad in the Keys or Pads pop-up dialogs.**
- **By additionally pressing one or more dedicated modifier key(s) or pad(s), you can add a root or fifth bass note and interval notes or use chord inversions.**
- **MIDI Learn is used to assign the pads on a hardware pad controller to the corresponding Smart Chord pads, see page 19.**



➔ **To activate or deactivate the Smart Chord function, click its On/Off button.**

The two buttons at the bottom of the Smart Chord section are used to open the Pads and Keys pop-up dialogs. The options offered by these dialogs are described on page 18 and page 16.

Selecting Root Note and Chord Map

Selecting a root note and a chord map, automatically determines the chords that Smart Chord will create. For example, if you select the C scale and one of the available chord maps and then press the keys C, D, E, F, G, A and B (without activating an interval note) Smart Chord will create the following chords:

Keyboard key played	Chord created with key set to C major	Chord created with key set to C minor	Chord created with key set to C dom 7	Chord created with key set to C Dorian
C	C major	C minor	C major	C minor
D	D minor	D minor	D minor	D minor
E	E minor	Eb	E dim	Eb
F	F major	F minor	F major	F major
G	G major	G minor	G minor	G minor
A	A minor	Ab	A minor	A dim
B	B dim	Bb	Bb	A#

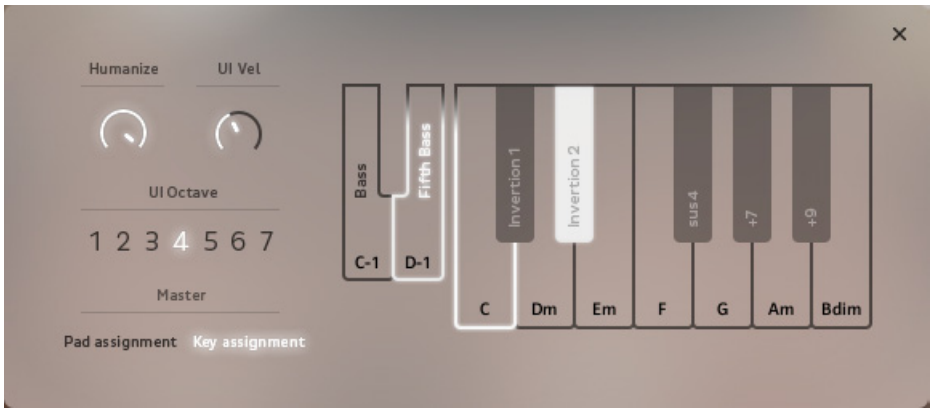
➔ **To select a root note and a chord map, open the dropdown menus in the Smart Chord section and select the desired menu entries.**
The root note that you select is assigned to the C key on your controller keyboard.

- **By clicking/playing one of the black keys or respective pads on the screen or your keyboard or pad controller, you can play chord inversions and/or add interval notes such as sus2, sus4, +7 and +9 and add a root or fifth bass note.**

! The MIDI Learn function lets you assign Smart Chord pads to your external pad controller hardware. Find more information on page 19.

Keys Pop-Up Dialog

➔ **Click the Keys button to open the Keys pop-up dialog.**



Keys pop-up dialog

Key Octave

The entire right half of this dialog is occupied by an octave of keys, showing the smart chords that were automatically assigned to the “white” piano keys, when you selected the root note and chord map in the Smart Chord section drop-down menus.

- **You can now either play these chords by clicking the desired key or pressing the corresponding key/pad on your external controller hardware.**
- **Additionally selecting one or more “black” modifier keys on-screen or pressing them on your external hardware controller lets you play chord inversions and add interval and bass notes.**
  Selected (and played) keys/pads get a white frame on-screen.

! You can also use Smart Chords to control the Animator, see page 23!

Additional Bass Note Keys

You can add bass notes to all smart chords. Two smaller keys named Bass and Fifth Bass are displayed to the left of the key octave in the Key pop-up dialog.

- **If you select one of these keys so that its frame gets highlighted, the selected bass note type will be added to all chords that you play using the Smart Chord function.**

➔ **Click the desired bass note type to activate or deactivate it.**
Activating one of the two options deactivates the other.

- **You can also trigger bass notes manually. Bass and fifth bass are assigned to the keys C-1 and D-1 on your external keyboard or to the two right pads in the second pad line on your pad controller.**

Humanize & UI Velocity

These two knobs are available in the Keys and Pads pop-up dialogs.

Humanize Knob

- **When the Humanize knob is fully turned down, all notes in a smart chord are triggered simultaneously.**
  Depending on the situation, this may or may not be desired, as you might perceive it as “machine-like”.
- **Turning up the Humanize knob introduces slight random delays between the individual notes within the chord, as would happen when a human player would play it.**

➔ **Click and drag the Humanize button up- or downwards to set the desired value.**

UI Velocity Knob

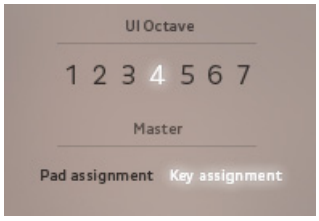
The User Interface knob lets you set the velocity value that is applied, when you play chords by clicking on keys or pads in the Keys and Pads pop-up dialogs.

➔ **Click and drag the UI Vel button up- or downwards to set the desired value.**

UI Octave Selector

If you want to play smart chords by clicking on the keys in the Keys pop-up dialog, you can apply the UI Octave selector to choose the octave Smart Chord should use.

➔ **Select one of the available seven octaves by clicking the respective number so that it gets highlighted.**



User interface Octave selector and Master switches

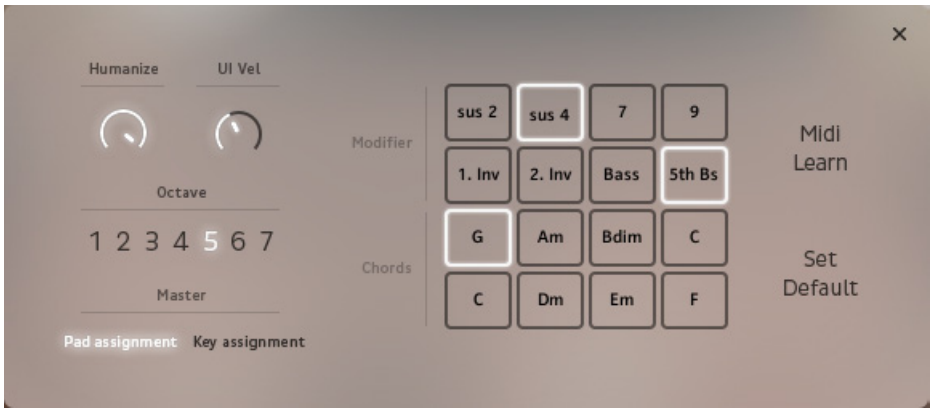
Master Switches

The chords assigned to keys on your keyboard and to pads on your pad controller may be different, depending on what you have set up using the MIDI Learn function, see page 19.

You can use these two switches to toggle between the two setups.

➔ **Click Pad assignment or Key assignment to switch to the desired setup.**
The currently selected assignment will be highlighted.

Pads Pop-Up Dialog

➔ **Click the Pads button to open the Pads pop-up dialog.**

Pads pop-up dialog

Pad Block

The entire right half of this dialog is occupied by a pad block with 16 pads, showing the smart chords that were automatically assigned to the individual pads when you selected the root note and chord map in the Smart Chord section drop-down menus. The upper eight pads are used for modifiers such as sus2, sus4, 7th, 9th etc.

- **You can now either play these chords by clicking the desired pad or pressing a key/pad on your external controller hardware.**
- **Additionally selecting one or more modifier pads on-screen or by pressing them on your external hardware controller lets you play chord inversions and/or add interval and bass notes.**
  Selected (and played) keys/pads get a white frame on-screen.

Bass Note Pads

You can add bass notes to all smart chords. Two pads named Bass and 5th Bass are displayed in the pad block.

- **If you select one of these pads so that its frame gets highlighted, the selected bass note type will be added to all chords that you play using the Smart Chord function.**

➔ **Click the desired bass note type to activate or deactivate it.**
Activating one of the two options deactivates the other.

- **You can also trigger bass notes manually. By default, bass and fifth bass are assigned to the two right pads in the second pad line on your pad controller. You can change this using the MIDI Learn function, see page 19.**

Humanize & UI Velocity

These two knobs are available in the Pads and Keys pop-up dialogs.

Humanize Knob

- **When the Humanize knob is fully turned down, all notes in a smart chord are triggered simultaneously.**
  Depending on the situation, this may or may not be desired, as you might perceive it as “machine-like”.
- **Turning up the Humanize knob introduces slight random delays between the individual notes within the chord, as would happen when a human player would play it.**

➔ **Click and drag the Humanize button up- or downwards to set the desired value.**

UI Velocity Knob

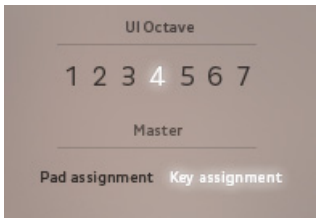
The UI (User Interface) knob lets you set the velocity value that is applied, when you play chords by clicking on keys or pads in the Pads and Keys pop-up dialogs.

➔ **Click and drag the UI Vel button up- or downwards to set the desired value.**

Octave Selector

This lets you select an octave for smart chords that you play both by clicking on the pads in the Pads pop-up dialog or by pressing pads on your external hardware.

➔ **Select one of the available seven octaves by clicking the respective number so that it gets highlighted.**



User interface Octave selector and Master switches

Master Switches

The chords assigned to pads on your pad controller and to keys on your keyboard may be different, depending on what you have set up using the MIDI Learn function, see below.

You can use these two buttons to toggle between the two setups.

➔ **Click Pad assignment or Key assignment to switch to the desired setup.**
The currently selected assignment will be highlighted.

MIDI Learn

Use this function in the Pads pop-up dialog to assign the available Smart chords, bass and interval notes as well as chord inversions to pads on your external hardware controller.

1. **Activate MIDI Learn by clicking it so that it gets highlighted.**
The frame of the upper left of the pads (sus2) starts to flash
2. **Now press the pad on your external hardware to which you want to assign sus2.**
3. **The frame of the next pad (sus4) starts to flash indicating that you can now assign sus4 to the next pad on your external hardware.**
4. **Repeat the process for all 16 pads.**
The MIDI Learn procedure will only be complete when all pads have been assigned and the last pad has stopped flashing.

! Please note: To be able to use your pad controller hardware, you must activate the Pad assignment switch so that it gets highlighted.

5. **If you want to keep your settings, save the NKI.**

Set Default

Session Keys comes with a default setup file (template) for Native Instruments' Maschine controller. If you use this, Maschine is set up so that all functions in Session Keys are assigned to Maschine buttons and faders. You can find the file in the Maschine Settings folder which resides inside the Resources folder.

Please refer to the Maschine manual for an explanation on how to load template files.

Using the Set Default button will reset pad assignment to the Maschine default setting.

➔ **Click Set Default to do this.**
Note that this can not be undone, unless you have saved your changes in the NKI and can load them again.

Animator

The Animator is an adaptable MIDI piano phrase player. It contains pre-programmed piano phrases in various styles, grouped as songs, which you can utilize using your own chords. Styles from different songs can be combined and saved as new songs.

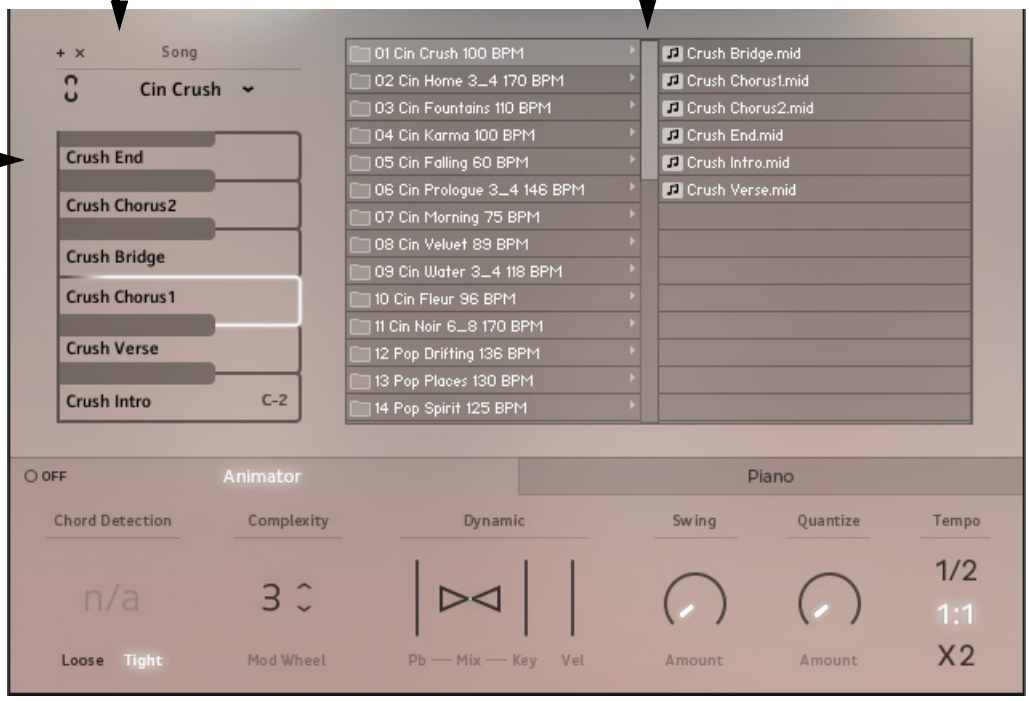
➜ **To open the Animator section, click the Animator tab located in the lower left of the window.**
When you do this, the default song will also automatically be opened.

➜ **To activate the Animator, click the On/Off button in the Animator tab so that it lights up.**

Song section. Here you can load, name, store, add and delete Animator songs and assign the current Sound preset to the current song

Browser. If you double click a MIDI phrase here, it will be assigned to the selected "white" key in the phrase selector

Phrase selector. Here you can select phrases for direct use or replacement.



Animator

Animator — Quick Overview

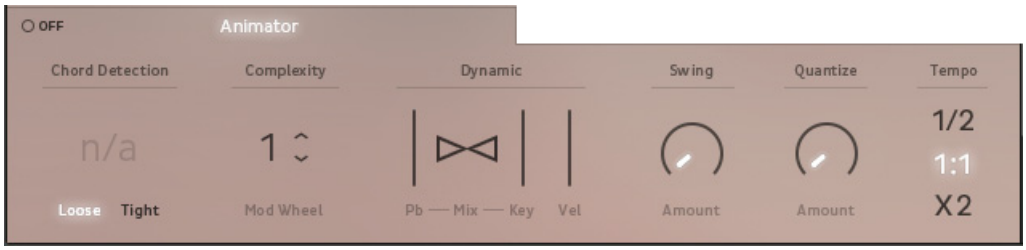
All Animator parameters are visible at a glance.

Animator Section Top End Elements

The top end of the Animator section contains the following elements:

- **The + symbol lets you add a new song, see page 21.**
- **The x symbol lets you delete the currently selected song, see page 22.**
- **The chain symbol lets you assign the current Sound preset to a song, see "Creating a New Animator Song" on page 21.**
- **The downward pointing arrow head lets you open the Song drop-down menu where you can load one of the available songs.**
- **The phrase selector (the "white" keys in the vertically aligned keyboard octave) contains the individual piano phrases of a song. To utilize the play characteristics of a piano phrase, select one of the keys and play chords on your external keyboard, see "Phrase Selector" on page 22.**
- **The browser next to the phrase selector lets you browse for and select individual piano phrases from other songs for assignment to the currently selected key in the phrase selector. This also lets you assemble your own songs, see "The Browser" on page 22.**

Animator Section Bottom End Elements



From left to right, the bottom end of the Animator section contains the following elements:

- **The On/Off button lets you activate or deactivate the Animator.**
- **Chord detection displays the chord you currently play.**
- **The Loose and Tight buttons let you toggle between a long or short chord recognition time.**
- **The complexity of the Animator piano phrases can be increased or decreased by clicking the vertically aligned arrow head buttons in the Complexity section or by using the Modulation wheel on your external keyboard. Three complexity levels (1-3) are available.**
- **The Dynamic section lets you set up phrase dynamics control. The two dynamics triangles work like a bipolar fader: by clicking and dragging horizontally inside this Dynamic fader you can determine the degree to which dynamic is controlled by you using the Pitch Bend wheel and/or the velocity of your play.**

In the default center position (triangles are empty), dynamics can be controlled to an equal degree using both options.
Dragging the fader fully to the left (left triangle filled white) lets you control dynamics using the Pitch Bend wheel only.
Dragging the fader fully to the right (right triangle filled white) lets you control dynamics by the velocity of your play only.

- **Three velocity indicators reflect the currently applied velocity.**
- **The Swing knob lets you add a swing feel to rhythmically straight Animator piano phrases.**
- **The Quantize knob lets you continuously control Quantizing (i.e. positioning of individual notes to rhythmically correct positions within the bar).**
- **The Tempo section lets you set Animator phrase playback to half, normal or double tempo.**

Opening an Animator Song

When you open the Animator for the first time after loading Session Keys Grand S, it is opened with the default song. All additional factory songs (except for some special versions containing arpeggio triplets etc.) are visible both in the Song drop-down menu and in the browser.

! Please note: The Song drop-down menu is used to select complete songs with all piano phrases whereas the browser is used to select and assign individual phrases to your personal song version. You can not load a complete song from the browser in one go!

➔ **To open an Animator song, open the Song drop-down menu and select the desired song.**
All piano phrases of the Animator song are loaded into the phrase selector.

Creating a New Animator Song

New songs can be created based on phrases of available factory songs. You can assemble phrases as you like, save them as a new song and use them to play the chords of your own composition. Each pre-programmed song has different piano phrases for intro, verse, choruses, bridge and ending.

To add other phrases to an existing song or to the available Empty Factory preset, proceed as follows:

1. **In the phrase selector, select the phrase you want to replace.**
2. **Navigate to the new phrase in the browser and double click it, see page 22.**
The new phrase will now replace the old one in the phrase selector.

3. **Repeat until you're done.**
4. **Click the small + symbol in the top left corner of the Animator view.**
   The previous song name will be replaced by "Enter Name".
5. **Name the new song by selecting "Enter Name" and typing in a new name.**
6. **To save the current Sound settings with the new song, make sure the links in the small chain icon are unbroken by clicking on the icon, if necessary.**
7. **Save the new song by clicking the small OK button.**
   It will now also appear in the Song drop down menu as a new Animator Song and can be selected at any time.

Deleting an Animator Song

To delete one of your own Animator songs, proceed as follows:

1. **Open the song you want to delete.**
2. **Click the small x button to delete the currently loaded song.**
   The song will immediately be removed from the phrase selector and from the Song drop-down menu.

! Please note: Factory songs can not be deleted.

Phrase Selector

When you load an Animator song from the Song drop-down menu, its phrases will be loaded into the phrase selector and you can select the desired piano phrase by clicking here or by using the keys of the C-2 octave as switches.

Phrase selector

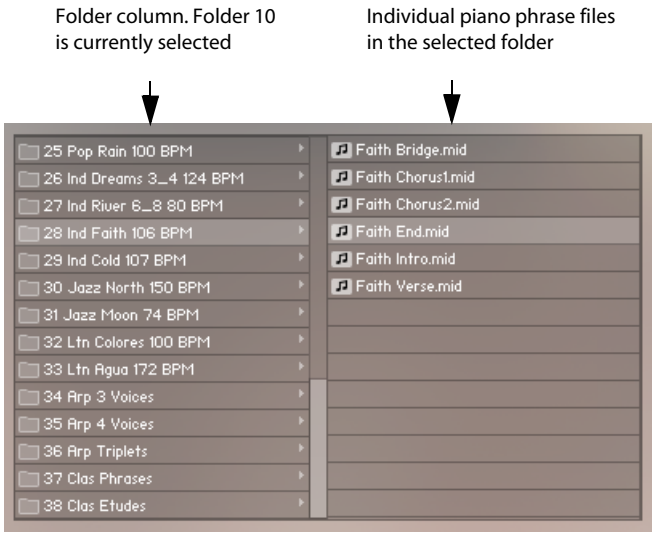
1. **To select a phrase, click on it so that it gets selected. Alternatively, press one of the keys in the C-2 octave on your external keyboard controller.**
   A selected phrase has a white frame.
2. **Play chords on the connected external MIDI keyboard.**
3. **Select another phrase etc.**

! Please note that each Animator phrase contains three complexity levels which you can select by clicking the vertically aligned arrow head buttons in the Complexity section, see page 21, or by using the Modulation wheel on your hardware controller keyboard.

The Browser

In the browser, you can pick individual phrases from the available factory songs and load them into the phrase selector. You can also select individual Animator piano phrases from various other Animator songs and assign them to the currently loaded song or compile a new song by using the Empty Factory preset. You can save your phrase compilation under a new name and it becomes available on the Song drop-down menu, see "Creating a New Animator Song" on page 21.

The column to the left in the browser shows all available factory songs as folders. Each folder contains up to six phrases. When you click a song folder, its phrases are displayed in the right browser column.



To assign a piano phrase file to one of the slots (keys) in the piano phrase selector, proceed as follows:

1. **Select the phrase slot in the phrase selector by clicking on it.**
   The key graphic will get a white frame.
2. **In the browser, double click the desired piano phrase to assign to the selected slot.**

Animator Hints

Using Smart Chords as Animator input

If you have activated Smart Chords, see page 15, you can play Animator phrases with one (or two or three) fingers only! The chords created by the Smart Chords function will then be used to play the currently selected Animator phrase.

- **If you want to use the plain chords provided by the selected Smart Chord's root note and chord map, you can do this by pressing one key or pad only!**
- **If you want to use an inversion or additional interval notes, you can do this by additionally pressing the corresponding key(s) or pad(s) on your external MIDI controller hardware.**

Using the Sustain Pedal

In Animator mode, you can use the sustain pedal to hold chord playback for as long as you wish. This can be very useful.

➔ **Press the desired chord, then press the sustain pedal and let go of the keys.**
The chord will continuously play back until you release the pedal.

Using independent Bass notes

When you play Animator phrases, you can freely change the bass note and the phrase playback will change accordingly. Try this:

1. **Play chords in the middle C octave**
2. **Now use the left hand to play additional singular bass keys and note how the bass changes in phrase playback.**

Playing Bass Keys below C2

If you use the Animator (without Smart Chords) and play a key below C2 , you will only get the bass of the respective phrase, as the complete phrase would simply not sound well.

Additional Hints

External Sequencer Automation

All knobs and faders in Session Keys can be controlled by external MIDI or host automation.

➔ **Simply open the KONTAKT automation window and drag the automation ID to the desired knob or fader.**
For further information on automation assignment please refer to the Kontakt manual.

Maschine Hardware Integration

Session Keys comes with a template file for Native Instruments' Maschine hardware. When you load the template into Maschine, you can use controller assignments as shown on the following pages.

Number	Function	MIDI CC#	Number	Function	MIDI CC#
1	**Previous Sound Preset**	88	2	**Next Sound Preset**	89
3	**No function**		4	**EQ Bypass**	87
5	**Stereo Width**	31	6	**Compressor Bypass**	32
7	**Reverb Bypass**	33	8	**Delay Bypass**	34
9	**Animator On/Off**	119	10	**Tonality Tab**	85
11	**Effects Tab**	86	12	**Animator Dynamic Pitchbend**	./.
13	**Complexity Layer**	1	14	**Stereo Width**	108
15	**Compressor Threshold**	109	16	**Compressor Ratio**	110
17	**Reverb Mix**	111	18	**Delay Mix**	112
19	**Delay Time**	113	20	**Pentamorph (turn the control) Pentamorph Gain (push the control)**	Turn = 20, Push = 118
21	**Smart Chord Toggle**	35	22	**0% Humanize**	117
23	**35% Humanize**	117	24	**70% Humanize**	117
25	**100% Humanize**	117	26	**Animator Phrase 6 A-2**	./.
27	**Animator Phrase 5 G-2**	./.	28	**Animator Phrase 4 F-2**	./.
29	**Animator Phrase 3 E-2**	./.	30	**Animator Phrase 2 D-2**	./.
31	**Animator Phrase 1-C**	./.	32	**Modifier: sus2 G8**	./.
33	**Modifier: sus4 F#-1**	./.	34	**Modifier: +7 G#-1**	./.
35	**Modifier: +9 A#-1**	./.	36	**Modifier: 1st Inversion C#-1**	./.
37	**Modifier: 2nd Inversion D#-1**	./.	38	**Modifier: Bass C-1**	./.
39	**Modifier: Fifth Bass D-1**	./.	40	**Harmonic Function: G**	./.
41	**Harmonic Function: A**	./.	42	**Harmonic Function: B**	./.
43	**Harmonic Function: C**	./.	44	**Harmonic Function: C**	./.
45	**Harmonic Function: D**	./.	46	**Harmonic Function: E**	./.
47	**Harmonic Function: F**	./.			

Number	Function	MIDI CC#	Number	Function	MIDI CC#
1	Previous Sound Preset	88	2	Next Sound Preset	89
3	**No function**		4	**No function**	
5	**No function**		6	**No function**	
7	**No function**		8	**No function**	
9	Animator On/Off	119	10	Tonality Tab	85
11	Effects Tab	86	12	**Harmonic Resonance**	22
13	**Inharmonic Resonance**	23	14	**Sympathetic Resonance**	24
15	**Attack**	25	16	**Decay**	26
17	**Pedal Noise**	27	18	**Key Noise**	28
19	**Reverse Sample Volume**	30	20	Pentamorph (turn the control) Pentamorph Gain (push the control)	Turn = 20, Push = 118
21	Smart Chord Toggle	35	22	0% Humanize	117
23	35% Humanize	117	24	70% Humanize	117
25	100% Humanize	117	26	Animator Phrase 6 A-2	./.
27	Animator Phrase 5 G-2	./.	28	Animator Phrase 4 F-2	./.
29	Animator Phrase 3 E-2	./.	30	Animator Phrase 2 D-2	./.
31	Animator Phrase 1-C	./.	32	Modifier: sus2 G8	./.
33	Modifier: sus4 F#-1	./.	34	Modifier: +7 G#-1	./.
35	Modifier: +9 A#-1	./.	36	Modifier: 1st Inversion C#-1	./.
37	Modifier: 2nd Inversion D#-1	./.	38	Modifier: Bass C-1	./.
39	Modifier: Fifth Bass D-1	./.	40	Harmonic Function: G	./.
41	Harmonic Function: A	./.	42	Harmonic Function: B	./.
43	Harmonic Function: C	./.	44	Harmonic Function: C	./.
45	Harmonic Function: D	./.	46	Harmonic Function: E	./.
47	Harmonic Function: F	./.			

Number	Function	MIDI CC#	Number	Function	MIDI CC#
1	Previous Sound Preset	88	2	Next Sound Preset	89
3	**EQ Bypass**	87	4	**No function**	
5	**No function**		6	**No function**	
7	**No function**		8	**No function**	
9	Animator On/Off	119	10	Tonality Tab	85
11	Effects Tab	86	12	**Low Frequency**	102
13	**Low Frequency Gain**	103	14	**Mid Frequency**	104
15	**Mid Frequency Gain**	105	16	**High Frequency**	106
17	**High Frequency Gain**	107	18	**No function**	
19	**No function**		20	Pentamorph (turn the control) Pentamorph Gain (push the control)	Turn = 20, Push = 118
21	Smart Chord Toggle	35	22	0% Humanize	117
23	35% Humanize	117	24	70% Humanize	117
25	100% Humanize	117	26	Animator Phrase 6 A-2	./.
27	Animator Phrase 5 G-2	./.	28	Animator Phrase 4 F-2	./.
29	Animator Phrase 3 E-2	./.	30	Animator Phrase 2 D-2	./.
31	Animator Phrase 1-C	./.	32	Modifier: sus2 G8	./.
33	Modifier: sus4 F#-1	./.	34	Modifier: +7 G#-1	./.
35	Modifier: +9 A#-1	./.	36	Modifier: 1st Inversion C#-1	./.
37	Modifier: 2nd Inversion D#-1	./.	38	Modifier: Bass C-1	./.
39	Modifier: Fifth Bass D-1	./.	40	Harmonic Function: G	./.
41	Harmonic Function: A	./.	42	Harmonic Function: B	./.
43	Harmonic Function: C	./.	44	Harmonic Function: C	./.
45	Harmonic Function: D	./.	46	Harmonic Function: E	./.
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